

CLAIMS

1. A composition that is suitable for topical application to skin, comprising an aqueous phase, a fatty phase, a dispersion of tensioning polymer particles, and at least one ionic amphiphilic polymer.

2. The composition of claim 1, wherein said dispersion of said tensioning polymer particles comprises at least one polymer selected from polyurethane polymers or copolymers, acrylic polymers or copolymers, sulphonated isophthalic acid polymers or grafted silicone polymers.

3. The composition of claim 2, wherein said dispersion of said tensioning polymer particles comprises at least one dispersion of polyester-polyurethane particles.

4. The composition of claim 2, wherein said grafted silicone polymer is a polydimethylsiloxane onto which are grafted, via a linking chain of thiopropylene type, mixed polymer units of poly(meth)acrylic acid type and polyalkyl (meth)acrylate type.

5. The composition of claim 4, wherein said grafted silicone polymer is a copolymer of polydimethylsiloxane comprising propylthio groups, methyl acrylate, methyl methacrylate and methacrylic acid.

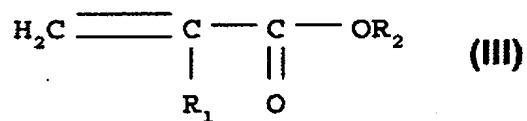
6. The composition of claim 2, wherein said synthetic polymer is selected from interpenetrated polymer networks.

7. The composition of to claim 6, wherein said interpenetrated polymer is an aqueous dispersion of particles based on polyurethane and polyacrylic, with a weight-average size of between 90 and 110 nm, a number-average size of about 80 nm and a glass transition temperature, T_g , ranging from about -60°C to $+100^{\circ}\text{C}$.

8. The composition of claim 1, wherein said amphiphilic polymer is selected from acrylic copolymers, hydrophobic AMPS derivatives, acrylic terpolymers or sulphoisophthalic copolyesters.

9. The composition of claim 8, wherein said acrylic copolymers are obtained by copolymerization of a monomer (a) selected from α,β -ethylenically unsaturated carboxylic acids with a monomer or (b) derived from the reaction of an ethylenically unsaturated carboxylic acid monomer with an optionally alkoxyated, preferably polyethoxylated aliphatic fatty alcohol, wherein the carbon-based chain of said aliphatic fatty alcohol contains at least 6 carbon atoms.

10. The composition of claim 9, wherein said acrylic copolymers consist of polymers formed from a mixture of monomers comprising acrylic acid and an ester of formula (III):



in which R_1 denotes H or CH_3 , R_2 denoting an alkyl radical containing from 12 to 22 carbon atoms, and a crosslinking agent.

11. The composition of claim 10, wherein said acrylic copolymers consist of 95% to 60% by weight of acrylic acid, 4% to 40% by weight of C_{10} - C_{30} alkyl acrylate and 0% to 6% by weight of crosslinking polymerizable monomer.

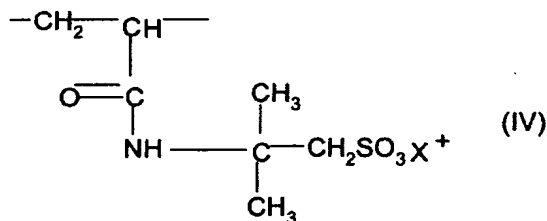
12. The composition of claim 11, wherein said acrylic copolymers consist of 98% to 96% by weight of acrylic acid, 1% to 4% by weight of C_{10} - C_{30} alkyl acrylate and 0.1% to 0.6% by weight of crosslinking polymerizable monomer.

13. The composition of claim 11, wherein said crosslinking polymerizable monomer is selected from polyallylsucrose or polyallylpentaerythritol.

14. The composition of claim 9, wherein said acrylic copolymer is obtained by copolymerization of a monomer (a) selected from α,β -ethylenically unsaturated carboxylic acids with a monomer or (b) derived from the reaction of itaconic acid with an alkoxyated, preferably polyethoxylated aliphatic fatty alcohol comprising from 1 to 50 alkylene oxide units, wherein the carbon-based chain of said aliphatic fatty alcohol contains at least 6 carbon atoms.

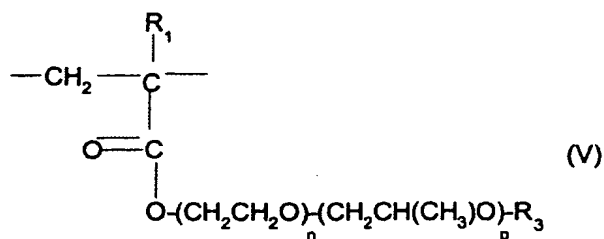
15. The composition of claim 8, wherein said hydrophobic AMPS derivative is selected from crosslinked or non-crosslinked amphiphilic polymers of 2-acrylamido-2-methylpropanesulphonic (AMPS) acid or of at least one ethylenically unsaturated monomer comprising at least one hydrophobic portion containing from 6 to 30 carbon atoms.

16. The composition of claim 15, wherein said hydrophobic AMPS derivative is a copolymer consisting of:
(a) from 40 mol% to 99 mol% of 2-acrylamido-2-methylpropanesulphonic (AMPS) acid units of formula (IV):



in which X^+ is a proton, an alkali metal cation, an alkaline-earth metal cation or an ammonium ion; and

(b) from 1 mol% to 60 mol% of units of formula (V):

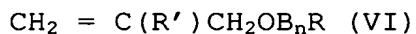


in which n and p, independently of each other, denote a number of moles and range from 0 to 30, with the proviso that n + p is less than or equal to 30; R₁ denotes a hydrogen atom or a C₁-C₆ linear or branched alkyl radical and R₃ denotes a linear or branched alkyl containing from 6 to 30 carbon atoms.

17. The composition of claim 8, wherein said acrylic terpolymer is obtained from (a) an α,α-ethylenically unsaturated carboxylic acid, (b) a non-surfactant ethylenically unsaturated monomer different from (a) or (c) a nonionic urethane monomer which is the product of reaction of a monohydric nonionic amphiphilic compound with a monoethylenically unsaturated isocyanate.

18. The composition of claim 17, wherein said acrylic terpolymer is a methacrylic acid/methyl acrylate/behenyl alcohol dimethyl-m-isopropenylbenzylisocyanate terpolymer ethoxylated with 40 EO.

19. The composition of claim 8, wherein said acrylic terpolymer is formed from (a) 20% to 60% by weight of acrylic acid and/or of methacrylic acid, (b) 5% to 60% by weight of lower alkyl (meth)acrylates, (c) 2% to 50% by weight of fatty-chain allyl ether of formula (VI)



in which R' denotes H or CH₃, B denotes an ethyleneoxy radical, n is zero or denotes an integer ranging from 1 to 100, R

denotes a hydrocarbon-based radical chosen from alkyl, arylalkyl, aryl, alkylaryl and cycloalkyl radicals, containing from 8 to 30 carbon atoms, and (d) 0% to 1% by weight of a crosslinking agent which is a copolymerizable polyethylenically unsaturated monomer chosen from diallyl phthalate, allyl (meth)acrylate, divinylbenzene, (poly)ethylene glycol dimethacrylate and methylenebisacrylamide.

20. The composition of claim 19, wherein said acrylic terpolymer is a crosslinked terpolymer of methacrylic acid, ethyl acrylate, and stearyl alcohol ether of polyethylene glycol allyl ether (10 EO) (40/50/10).

21. The composition of claim 8, wherein said sulphoisophthalic copolyester consists essentially of repeated units of isophthalic acid or isophthalic acid esters or isophthalic acid chloride, diol, and sulphoisophthalic acid.

22. The composition of claim 21, wherein said sulphoisophthalic copolyester comprises, per 100 mol of acids, from 75 mol% to 90 mol% of isophthalic acid and from 10 mol% to 25 mol% of sulphoisophthalic acid or sodium salt of 5-sulphoisophthalic acid, and, per 100 mol of diols, from 45 mol% to 85 mol% of diethylene glycol and from 15 mol% to 55 mol% of 1,4-cyclohexanedimethanol or ethylene glycol, or a mixture thereof.

23. The composition of claim 1, wherein said composition contains from 0.5% to 2% by weight of ionic amphiphilic polymer relative to the total weight of the composition.

24. The composition of claim 1, further comprising less than 1% by weight of surfactant relative to the total weight of the composition.

25. The composition of claim 24, wherein said surfactant is present at less than 0.5% by weight relative to the total weight of the composition.

26. The composition of claim 1, wherein said composition contains at least 45% by weight of water relative to the total weight of the composition.

27. The composition of claim 1, wherein said fatty phase is present at an amount of at least 1% by weight relative to the total weight of the composition.

28. The composition of claim 1, wherein said tensioning polymer particle is present at a concentration from 0.1% to 50% by weight relative to the total weight of the composition.

29. The composition the claim 28, wherein said concentration is from 1% to 20% by weight relative to the total weight of the composition.

30. The composition of claim 1, wherein said ionic amphiphilic polymer is present at an amount between 0.01% and 20% by weight relative to the total weight of the composition.

31. The composition of claim 30, wherein said amount is between 0.1% and 10% by weight relative to the total weight of the composition.

32. The composition of claim 31, wherein said amount is between 0.2% and 5% by weight relative to the total weight of the composition.

33. A composition that is suitable for topical application to skin comprising:

- a) an aqueous phase,
- b) a fatty phase
- c) a dispersion of tensioning polymer particles, said tensioning polymer particles exhibit a retraction of isolated *stratum corneum* of 1.5%

when tested at 30°C at a relative humidity of 40%, and at a concentration of 7% in water, and
d) at least one amphiphilic polymer.

34. The composition of claim 33, wherein said tensioning polymer particles are present at a concentration from 0.1% to 50% by weight relative to the total weight of the composition.

35. The composition of claim 34, wherein said concentration is from 1% to 20% by weight relative to the total weight of the composition.

36. The composition of claim 33, optionally including a surfactant in an amount of less than 1% by weight relative to the total weight of the composition.

37. The composition of claim 36, wherein said amount is less than 0.5% by weight relative to the total weight of the composition.

38. The composition of claim 33, wherein said composition contains at least 45% by weight of water relative to the total weight of the composition.

39. The composition of claim 33, wherein said fatty phase is present in an amount of at least 1% relative to the total weight of the composition is present.

40. The composition of claim 33, wherein said ionic amphiphilic polymer is present at an amount between 0.01% and 20% by weight relative to the total weight of the composition.

41. The composition of claim 40, wherein said amount is between 0.1% and 10% by weight relative to the total weight of the composition.

42. The composition of claim 41, wherein said amount is between 0.2% and 5% by weight relative to the total weight of the composition.

43. A method for treating wrinkled skin comprising applying said composition of claim 1 to said skin to smooth out wrinkles and fine lines.

44. A method for restoring skin tautness comprising applying said composition of claim 1 to said skin.

45. A method for treating wrinkled skin comprising applying said composition of claim 24 to said skin to smooth out wrinkles and fine lines.

46. A method for restoring skin tautness comprising applying said composition of claim 24 to said skin.